

# *Herpetacanthus stenophyllus* (Acanthaceae), a New Species from Costa Rica

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With the exception of some collections made a century ago by Henri Pittier and Adolfo Tonduz, the entire Caribbean slope of the Cordillera de Talamanca of Costa Rica has remained relatively unknown botanically. The species described below is from a large collection made recently in this area.

**Herpetacanthus stenophyllus** Gómez-L. & Grayum, sp. nov. TYPE: Costa Rica. Limón: Reserva Biológica Hitoy-Cerere, siguiendo el Sendero Espavel hasta la fila, Cordillera de Talamanca, 9°39'15"N, 83°01'20"W, 695 m, Herrera & Chacón 2404 (holotype, CR; isotypes, F, MO, USJ). Figure 1.

Species insignis folia lanceolata longiora atque angustissima, margine undulata, a species nobis notis bene distincta. Fruticulus 0.75–1.5 m altus, laxus. Caules ramulique graciles, virides, ad nodis incrassati, pilis adpressis serialibus vestiti, cystolithis conspicuis numerosissimis. Foliae oppositae; petiolis 4–12 mm longis, supra adpressi-pilosus. Lamina linearo-lanceolata, 8–19 cm longa, 4–10 mm lata, circa 9–12 nervis secundariis arcuatis, apice acuminata, base attenuata, glabra, cystolithis copiosus, margine integra undulata. Inflorescentiae spicatae axillare vel terminale, 2–7-florae, 2–4 cm longae, 1–3.5 cm latae. Bractea 1, ovata, 11–15 mm longa, 5–8 mm lata, trinervata, apice acuta, utrinque pallide viridia, inaequalis-basae, plerumque sessilis. Bracteolae 2, lanceolatae, 8 mm longae, circa 1 mm latae. Sepala 5, inaequalia, 5–8 mm longa, subulata. Corolla bilabiata, 16 mm longa (tubus 6 mm longus, 1.5 mm latus), ore 3 mm lata, albo-viridis, ad lobulis purpurini-lineolata vel -maculata; labio superiore 6–6.5 mm longo, 3.5 mm lato, apice minute bidentato; labio inferiore trilobulato, lobulis 1.5 mm longis. Stamina 4, didynama, inclusa; stamina longiora antheris bilocularibus, loculis superpositis, 1 mm longis; stamina breviora antheris unilocularibus, loculis 0.8 mm longis; filamenta plana pilis glanduliferis munita. Ovarium glabrum. Stylus 14 mm longus, inclusus, pilosus; stigma simplex capitatum. Fructus claviformis, 11 mm longus, glaber, apice acutus, retinacula acuta vel rotundata. Semina 4 irregulariter elliptica, circa 2 mm diametro, castanea, complanata.

Open subshrub 0.75–1.5 m tall. Stems and branches slender, green, thickened at the nodes, appressed-pubescent in lines, with conspicuous and very numerous cystoliths. Leaves opposite; petioles

4–12 mm long, appressed-pilose above. Blade linear-lanceolate, 8–19 cm long, 4–10 mm wide, with 9–12 arcuate secondary veins, apically acuminate, basally attenuate, glabrous but with abundant cystoliths on both surfaces, the margins entire, undulate. Inflorescence spicate, axillary (in the uppermost axils) and/or terminal, 2–7-flowered, 2–4 cm long, 1–3.5 cm wide. Bract 1, ovate, 11–15 mm long, 5–8 mm wide, trinerved, apically acute, pale green on both sides, basally asymmetrical, usually sessile. Bracteoles 2, lanceolate, 8 mm long, ca. 1 mm wide. Sepals 5, unequal, 5–8 mm long, subulate. Corolla

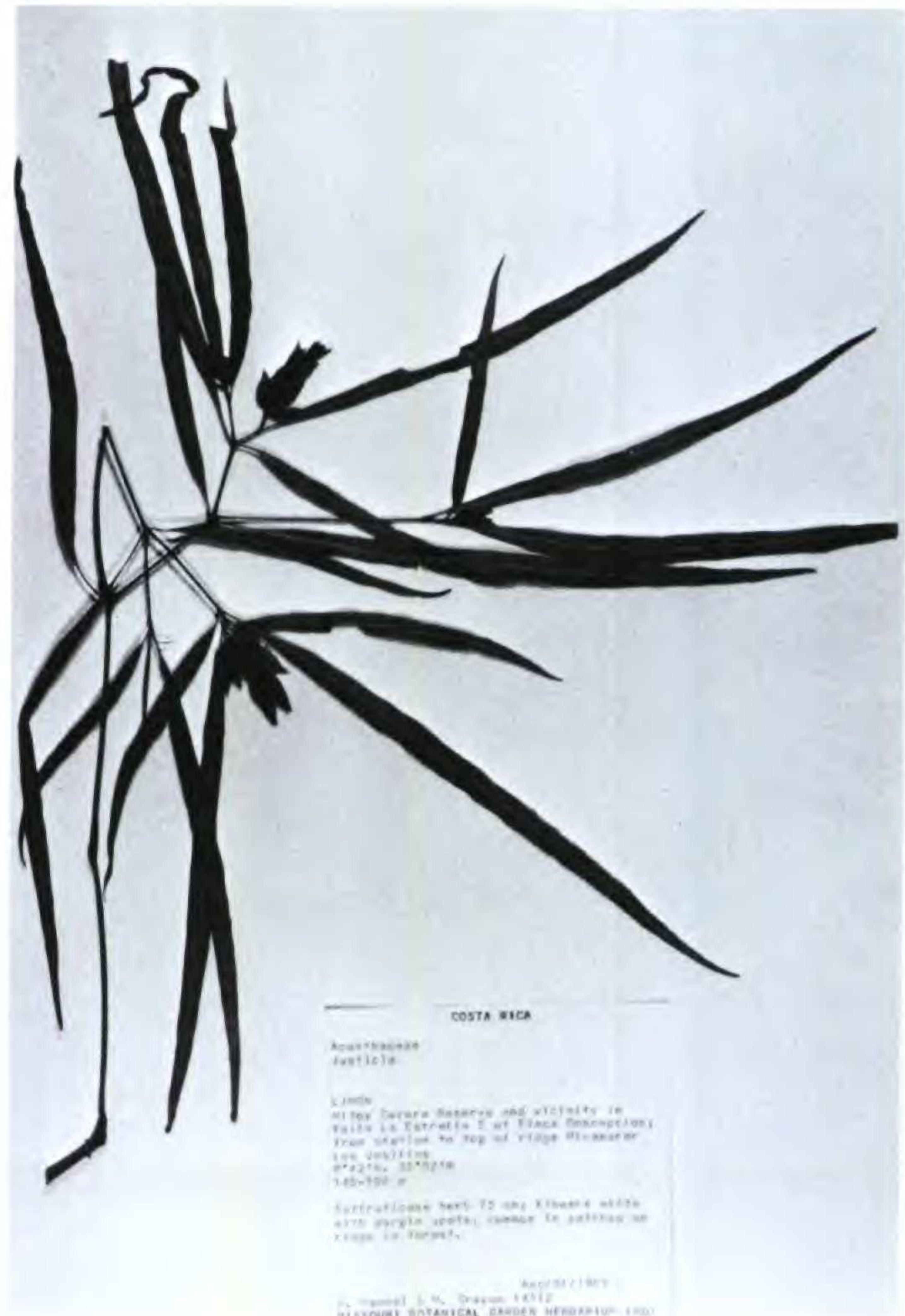


Figure 1. *Herpetacanthus stenophyllus* (Hammel & Grayum 14312).

bilabiate, 16 mm long (tube 6 mm long, 1.5 mm wide); throat 3 mm wide, whitish green, the lobes purple-lined or -spotted; upper lip 6–6.5 mm long, 3.5 mm wide, apically minutely bidentate; lower lip trilobulate, the lobes 1.5 mm long. Stamens 4, didynamous, included; anthers of the longer stamens 2-loculed with the locules superposed, 1 mm long; anthers of the shorter stamens 1-loculed, the locules 0.8 mm long; filaments flattened, glandular-pilose. Ovary glabrous. Style 14 mm long, included, pilose; stigma simple, capitate. Fruit claviform, 11 mm long, apically acute, the retinacula acute or rounded. Seeds 4, irregularly elliptical, ca. 2 mm diam., castaneous, compressed.

*Additional specimens examined.* COSTA RICA. LIMÓN: Cordillera de Talamanca, Valle de las Rosas, Miramar, afluentes del Río Moín, margen izquierda, 9°38'20"N, 83°00'30"W, 350 m, Herrera & Chacón 2390 (CR, MO); Hitoy Cerere Reserve, SW of Valle La Estrella, along Río Cerere to ca. 1 km upstream from Quebrada Barrera, 9°40.5'N, 83°02'W, 90–200 m, Grayum & Hammel 5778 (CR, MO); Hitoy Cerere Reserve and vicinity in Valle La Estrella S of Finca Concepción, from station to top of ridge Mirador or Los Jabillos, 9°42'N, 83°02'W, 140–500 m, Hammel & Grayum 14312 (CR, DUKE, GRI, MO).

*Herpetacanthus* Nees is a small genus of about 10 species, mostly Brazilian. It is distinguished by its bilabiate corollas and didynamous stamens (the long pair 2-celled, with one of the cells superposed; the shorter pair 1-celled). Only one species, *Herpetacanthus panamensis* Leonard, has been known from Costa Rica and Panama (Durkee, 1978, 1986). This differs markedly from *H. stenophyllum* in its ovate to ovate-elliptic leaves 4–14 cm long and 2.5–6 cm wide, plain white corollas, glabrous stamen filaments, and pubescent capsules. *Herpetacanthus*

*stenophyllum* is distinguished by its linear-lanceolate leaves, 8–19 cm long and only 4–10 mm wide, with undulate margins; it is further differentiated by having greenish white corollas with purple lines or spots, glandular-pubescent staminal filaments, and glabrous capsules. All of the remaining *Herpetacanthus* species described to date are accounted for in Nees von Esenbeck (1847) or Lindau (1904); none are reported as exhibiting the distinctive, narrowly elongate leaf shape of *H. stenophyllum*.

*Herpetacanthus stenophyllum* is presently known only from the mountainous region between the Río Estrella (Valle de La Estrella) and the Río Telire (Valle de Talamanca), from about 100 to 700 m. Here it may be locally abundant, growing in patches in slightly disturbed sites in primary forest. Although its extremely narrow leaves give *H. stenophyllum* the aspect of a rheophyte, it does not grow along streams.

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